

RTIP ID# <i>(required)</i> ORA120316				
Project Description <i>(clearly describe project)</i> <p>The City of Laguna Niguel proposes to construct improvements that will widen Crown Valley Parkway from the intersection of Cabot Road to the northbound Interstate 5 (I-5) ramp intersection in the City of Mission Viejo. The objective of the project is to improve the level of service (LOS) on the Crown Valley Parkway roadway segment to meet the existing and forecasted volumes of traffic in the surrounding area. The project is needed to address existing and forecast operational deficiencies on Crown Valley Parkway between the Cabot Road intersection and the northbound I-5 ramp intersection. Without this project, the p.m. peak-hour LOS of the southbound ramp intersection is forecast to degrade to LOS F by 2030. The southbound I-5 ramp intersection currently operates at LOS F.</p> <p>The proposed project consists of widening three bridges on the south (eastbound side) that span over Camino Capistrano and the Orange County Transportation Authority (OCTA) Metrolink Railroad, Oso Creek, and I-5. The widening would lengthen the existing right-turn lane onto the southbound I-5 on-ramp and add a lane to the northbound I-5 entrance ramp intersection. At the intersection of Forbes Road, improvements will include construction of a second left-turn lane in each direction of travel on Crown Valley Parkway. Forbes Road will be widened in the southbound direction to accept the dual left turns from westbound Crown Valley Parkway. Forbes Road south of Crown Valley Parkway will be widened, and one southbound lane will be added. The roadway segment between Cabot Road and Forbes Road would be modified with a proposed landscaped median that will separate eastward and westward traffic.</p>				
Type of Project <i>(use Table 1 on instruction sheet)</i> Change to existing regionally significant street				
County Orange	Narrative Location/Route & Postmiles Crown Valley Parkway Caltrans Projects – EA# OH86OK			
Lead Agency: City of Laguna Niguel				
Contact Person Dave Rogers	Phone# 949-362-4337	Fax#	Email drogers@ci.laguna_niguel.ca.us	
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 <input checked="" type="checkbox"/> PM10 <input checked="" type="checkbox"/>				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
<input checked="" type="checkbox"/> Categorical Exclusion (NEPA)	<input type="checkbox"/> EA or Draft EIS	<input type="checkbox"/> FONSI or Final EIS	<input type="checkbox"/> PS&E or Construction	<input type="checkbox"/> Other
Scheduled Date of Federal Action: Dec 2007				
Current Programming Dates <i>as appropriate</i>				
	PE/Environmental	ENG	ROW	CON
Start	Jun 2006	Dec 2007	Sep 2008	Sep 2009
End	Oct 2007	Jun 2009	May 2009	Dec 2010

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

Need

The project is needed to address existing and forecast operational deficiencies on Crown Valley Parkway between the Cabot Road intersection and the northbound Interstate 5 (I-5) ramp intersection. Without this project, the PM peak-hour level of service (LOS) of the southbound ramp intersection is forecast to continue operating at LOS F by year 2030 but with extended delay. The southbound I-5 ramp intersection currently operates at LOS F. Existing and forecast interchange congestion is the direct byproduct of inadequate vehicle queue storage. Under current conditions, existing eastbound Crown Valley Parkway peak-hour vehicle queuing eliminates efficient access to both the southbound I-5 entrance ramp and the northbound I-5 loop entrance ramp, thereby degrading interchange operations by forcing turning vehicles to be stored in through lanes. Also, eastbound and westbound left-turn vehicle queues at the Forbes Road/Crown Valley Parkway intersection are forecast to exceed existing queue storage capacity, which will result in vehicles queuing onto through lanes and further degrade arterial and interchange traffic operations.

Purpose

The purpose of the I-5 /Crown Valley Parkway interchange project is to improve existing and future access to I-5, reduce congestion along Crown Valley Parkway, and provide for gateway improvements into the City of Laguna Niguel.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

The land uses within the vicinity of the Crown Valley Parkway project include commercial and light industrial developments. The closest sensitive land uses are residences to the west at a distance of approximately 400 feet.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

LOS E/D, Total AADT = 68,558*, Truck AADT = 2,400* (3.5%), Year 2003, Along Crown Valley Parkway

* These traffic volumes apply to both the No Build and Build Alternatives.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

LOS E/D, Total AADT = 86,976*, Truck AADT = 3,044* (3.5%), Year 2030, Along Crown Valley Parkway

* These traffic volumes apply to both the No Build and Build Alternatives.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*

See attached analysis

Comments/Explanation/Details *(attach additional sheets as necessary)*

See attached analysis

Particulate Matter (PM₁₀ and PM_{2.5}) Analysis

The proposed project is located within a nonattainment area for federal PM_{2.5} and PM₁₀ standards. Therefore, per 40 CFR, Part 93, analyses are required for conformity purposes. However, the EPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not listed in Section 93.123(b)(1) as an air quality concern. The project does not qualify as a project of air quality concern (POAQC) because of the following reasons:

- i. The proposed project is not a new or expanded highway project. The proposed project is an operational improvement project that does not increase the capacity of Interstate 5 (I-5). This type of project improves roadway operations by reducing traffic congestion and improving intersection operations. Based on the Traffic Analysis (LSA, June 2007), the proposed project would improve operations along Crown Valley Parkway. The traffic volumes along Crown Valley Parkway would not exceed the 125,000 average daily trips threshold for a POAQC. In addition, based on the I-5 fleet mix, the truck volumes along Crown Valley Parkway would not exceed 10,000 daily trips or 8 percent of the traffic volume. The future traffic volumes along Crown Valley Parkway are shown in Table A.
- ii. The proposed project does not affect intersections that are at level of service (LOS) D, E, or F with a significant number of diesel vehicles. Based on the Traffic Analysis, the proposed project would reduce the delay and improve the LOS at intersections within the project vicinity. The LOS conditions in the project vicinity with and without the proposed project are shown in Table B.
- iii. The proposed project does not include the construction of a new bus or rail terminal.
- iv. The proposed project does not expand an existing bus or rail terminal.

Therefore, the proposed project meets Clean Air Act (CAA) requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing, PM₁₀ or PM_{2.5} violation.

Table A: Average Daily Traffic Volumes (Total AADT/Truck AADT)

Roadway Link	Existing Volumes (Total AADT/Truck AADT)	2030 Volumes (Total AADT/Truck AADT)
Crown Valley Parkway between Cabot Road and Forbes Road	57,000 (1,995)	67,931 (2,378)
Crown Valley Parkway between Forbes Road and Kaleidoscope Road	66,501 (2,328)	82,279 (2,880)
Crown Valley Parkway between Kaleidoscope Road and Puerta Real	68,558 (2,400)	86,976 (3,044)

Source: LSA Associates, Inc., June 2007.

AADT = annual average daily traffic

Table B: 2030 Intersection LOS Summary

Intersection	Alternatives							
	No Build				Build			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1. Cabot Rd./Crown Valley Pkwy.	0.74	C	0.78	C	0.74	C	0.78	C
2. Forbes Rd./Crown Valley Pkwy.	0.64	B	0.73	C	0.60	A	0.71	C
3. I-5 SB ramps/Crown Valley Pkwy.	0.71	C	0.98	E	0.71	C	0.90	D
4. I-5 NB ramps/Crown Valley Pkwy.	0.73	C	0.93	E	0.73	C	0.75	C
5. Kaleidoscope Rd./Crown Valley Pkwy.	0.66	B	0.69	B	0.66	B	0.69	B
6. Puerta Real/Crown Valley Pkwy.	0.69	B	0.80	C	0.69	B	0.80	C

Source: LSA Associates, Inc., June 2007.

ICU = intersection capacity utilization

LOS = level of service

NB = northbound

SB = southbound